

United States Patent and Trademark Office



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/000,323	12/04/2001	Masayuki Mishima	Q67519	Q67519 9759	
75	90 08/31/2004		EXAMINER		
SUGHRUE MION, PLLC			COLON, GERMAN		
2100 Pennsylva Washington, D	nia Avenue, NW C 20037-3213		ART UNIT	PAPER NUMBER	
3			2879		
			DATE MAILED: 08/31/200-	DATE MAILED: 08/31/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)			
Advisory Action	10/000,323	MISHIMA, MASAYUKI			
•	Examiner	Art Unit			
	German Colón	2879			
The MAILING DATE of this communication app	ears on the cover sheet with the c	orrespondence address			
THE REPLY FILED 29 July 2004 FAILS TO PLACE THI Therefore, further action by the applicant is required to a final rejection under 37 CFR 1.113 may only be either: (1 condition for allowance; (2) a timely filed Notice of Appea Examination (RCE) in compliance with 37 CFR 1.114.	void abandonment of this applica) a timely filed amendment whicl	ation. A proper reply to a			
PERIOD FOR RI	EPLY [check either a) or b)]				
a) The period for reply expires 3_months from the mailing date b) The period for reply expires on: (1) the mailing date of this no event, however, will the statutory period for reply expire ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAY 706.07(f). Extensions of time may be obtained under 37 CFR 1.136(a). The fee have been filed is the date for purposes of determining the period fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of (2) as set forth in (b) above, if checked. Any reply received by the Off timely filed, may reduce any earned patent term adjustment. See 37	Advisory Action, or (2) the date set forth later than SIX MONTHS from the mailin S FILED WITHIN TWO MONTHS OF The date on which the petition under 37 CF of extension and the corresponding amount the shortened statutory period for reply ice later than three months after the mai	g date of the final rejection. HE FINAL REJECTION. See MPEP R 1.136(a) and the appropriate extension on the fee. The appropriate extension originally set in the final Office action; or			
1. A Notice of Appeal was filed on Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.					
2. The proposed amendment(s) will not be entered because:					
(a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);					
(b) they raise the issue of new matter (see Note below);					
(c) they are not deemed to place the application issues for appeal; and/or	in better form for appeal by mate	rially reducing or simplifying the			
(d) they present additional claims without cancel	ling a corresponding number of f	inally rejected claims.			
NOTE:					
3. Applicant's reply has overcome the following rejection(s):					
 Newly proposed or amended claim(s) would canceling the non-allowable claim(s). 	be allowable if submitted in a se	eparate, timely filed amendment			
5.⊠ The a) affidavit, b) exhibit, or c) request fo application in condition for allowance because: Se	r reconsideration has been cons ee Continuation Sheet.	idered but does NOT place the			
6. The affidavit or exhibit will NOT be considered becaused by the Examiner in the final rejection.	cause it is not directed SOLELY	to issues which were newly			
7. For purposes of Appeal, the proposed amendmen explanation of how the new or amended claims w	at(s) a)⊡ will not be entered or b vould be rejected is provided belo)□ will be entered and an ow or appended.			
The status of the claim(s) is (or will be) as follows:					
Claim(s) allowed:					
Claim(s) objected to:					
Claim(s) rejected: <u>1-20</u> .					
Claim(s) withdrawn from consideration:					
8. The drawing correction filed on is a) app	proved or b) disapproved by	the Examiner.			

10. Other: ____

9. Note the attached Information Disclosure Statement(s)(PTO-1449) Paper No(s). _____.

Continuation of 5. does NOT place the application in condition for allowance because: Applicant argues that the Examiner has not provided sufficient reasons why one of ordinary skill in the art would have been led or motivated to combine Moriyama and Tsai or Baldo, Yasukawa and Tsai.

However, it is the Examiner's position that avoiding the detrimental effects of moisture and oxygen, such as peeling off or degeneration of the electrode layers, which result in dark spots and decrease in the lifetime of the device, are sufficient reasons to motivate a person of ordinary skill in the art to combine the teachings of the references. The reasons for combining need not be the same as Applicant's.

Moriyama discloses the detrimental effects of oxygen and moisture in the OLED, but is silent regarding their concentrations within the sealed atmosphere.

Tsai discloses the detrimental effects of both oxygen and moisture and teaches a limit to their concentration within the sealed device. The proper question is: would a skilled artisan reading Moriyama, who discloses the adverse effects of oxygen and moisture to an OLED, entertain the idea of controlling their concentration to the amounts taught by Tsai to avoid those adverse effects? Applicant has not persuasively argued that such a combination is improper.

Applicant argues that the cited references do not disclose or suggest the particular method for producing a light-emitting device, specifically, that the back side electrode and sealing parts are disposed in an inert gas atmosphere having the claimed moisture and oxygen concentrations.

It seems to be Applicant's position that the inert gas atmosphere introduced between the light-emitting layer and the sealing parts had a specified concentration of oxygen and moisture prior sealing of the device. Based on the arguments, the claims should be read as including additional limitations such as providing a chamber (like a vacuum chamber); controlling an atmosphere inside the chamber; placing a substrate on said chamber; forming the organic layers and electrodes on said substrate; and sealing the device.

However, the claims do not recite those limitations. The claims only recite that the final product or step, i.e. after sealing the device, the atmosphere has a particular concentration. The cited references teach the organic layers, the back side electrode, an at least a side of the sealing parts being in an atmosphere with specific oxygen and moisture concentrations.

Even if the claims recite the necessary structure or steps to include a chamber with a controlled atmosphere, the claims will not be patentably distinguished from the prior art for the following reasons:

First, the detrimental effects of oxygen and moisture are well known in the art (evidenced in the cited references);

Second, sealing steps within chambers to avoid contamination of the device are well known in the art;

Third, providing an inert gas between the substrates of a light-emitting device is well known in the art (evidenced in the cited references);

Fourth, the desired concentration of oxygen and moisture to avoid adverse effects are well known in the art (evidenced in the cited references).

Thus, even if the argued structure or steps were claimed, one of ordinary skills in the art would entertain the idea of using, during the process of sealing the light-emitting device, an inert gas having a moisture and oxygen concentration in an amount substantially equal to the desired final amount in order to reduce the number of manufacturing steps, i.e. an additional step for reducing the amount of oxygen and moisture in the gas.

NIMESHKUMAR D. PATEL SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2800